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Route To:

Subject: Bark Beetle Activity in Recreation Sites on the Black Mesa RD, Apache-Sitgreaves NFs

To: District Ranger, Black Mesa RD

Over the previous five years I have worked with Gayle Richardson, District Silviculturalist, to reduce bark beetle activity in developed recreation sites on the Black Mesa RD, Apache-Sitgreaves NFs. On 20 August 2007, I surveyed recreation sites on the District for bark beetle activity and evaluated previous prevention and suppression treatments that have occurred at these sites over the several years. I describe in this report what bark beetle activity was observed in these areas and make recommendations to minimize bark beetle impacts in the future.

The District has completed thinning treatments at many of the recreation and administrative sites. These treatments have improved growing conditions for residual trees and will reduce the long-term susceptibility of these areas to bark beetle attack. To provide short-term protection against bark beetle attack, Forest Health Protection funds were used to apply single tree protection treatments (preventative sprays) on selected high-value trees from 2003 – 2006.

On September 20, 2007, I examined several developed recreation and administrative sites across the Black Mesa RD for bark beetle activity. My surveys of recreation sites consisted of walkthroughs looking for fading trees, pitch tubes, and boring dust. It is important to note that a more intensive survey may find additional infested trees and additional trees may have become infested after my survey was completed. Therefore, the numbers of infested trees reported here should not be considered absolute. Bark beetle activity was at low or endemic levels at all sites with the exception of Canyon Point and Aspen Campgrounds. A brief summary is provided for each site surveyed.

Black Mesa District Office – No currently infested ponderosa pine trees were found at the District Office or adjacent compound. Trees attacked and killed in 2006 are still present and may pose a hazard to people living or working in the area.

Two ponderosa pine trees were attacked by western pine beetle in the area between the District Office and the Tall Timbers Park. In



**Figure 1.** Alligator juniper attacked by cedar bark beetles at Tall Timber Park (left) and egg and larval galleries (right).



addition, several alligator junipers had been attacked by cedar bark beetles in this area and in the Park (**Figure 1**).

Camp Shadow Pines & Black Mesa Work Center – One current infested tree was found at the Work Center.

Canyon Point Campground, Large Group Area, and Small Group Area – Approximately 25 current infested and 20 previously infested (attacked late 2006 or early 2007) ponderosa pine trees were observed within this large developed recreation site. Many of these trees were large yellow pines attacked by western pine beetle and found in scattered pockets of mortality throughout the campground (**Figure 2**). Many previously attacked trees are adjacent to camp sites and are hazards.

Rim Campground – One pine was killed during 2007 at this recreation site.

Gentry Lookout Campground – No new mortality was found at this recreation site.

Sinkhole Campground – One pine was killed during 2007 at this recreation site.

Woods Canyon Group Area – No new mortality was found at this recreation site.

Aspen Campground – Approximately 20 current infested ponderosa pine trees were found in one concentrated area near camp sites 72, H, and I (**Figure 2**). Three additional current year trees were found within this large developed recreation site.

Crook Campground – One pine was killed during 2007 at this recreation site.

Mogollon Campground – One pine was killed during 2007 at this recreation site.



**Figure 2.** *Fading ponderosa pine caused by western pine beetle at Canyon Point (left) and Aspen (right) campgrounds.*

Spillway Campground, Spillway Group Area and Amphitheater – No new pine mortality was observed within this recreation site.

Rocky Point Day Use area – Several Douglas-fir trees previously killed by Douglas-fir beetle were found within and adjacent to this recreation site. These trees are being felled and removed.

Black Canyon Rim Campground – Two pine trees currently infested with roundheaded pine beetle were found at this recreation site.

## **Recommendations**

Based on the current level of bark beetle activity within the recreation sites evaluated, beetle populations have returned to relatively low levels in most areas. The two exceptions are at Canyon Point and Aspen Campgrounds where there is still elevated bark beetle-caused pine mortality. In the short-term, prompt removal of currently infested trees at these two sites will help to reduce the immediate local population of beetles. It is recommended that the infested trees be removed yet this fall before the brood completes their development and adult beetles emerge in the spring. Felling of infested trees will not kill developing brood; infested trees must either be removed from the site or treated on site. Felling of previously infested trees (beetles have already exited from these trees) will reduce the risk of tree failure and potential hazard to campers. Because there is reduced bark beetle activity across the District, I do not feel that spraying of high value trees is necessary in 2008.

If you have any questions regarding my assessment of current bark beetle activity or my recommendations, please let me know. I can be reached at (928) 556-2074.

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